Notice of Allowability	Application No.	Applicant(s)	
	09/954,602	AHONEN, PETRI	
	Examiner	Art Unit	
	Huyen X. Vo	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *11/13/2007*.

2. ☒ The allowed claim(s) is/are *1-29*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☒ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's representative, Mr. Geza Ziegler, on 2/1/2008. The application has been amended as follows:

Claims 1, 7, 12, 19-20, and 23-24 have been amended as follows:

1. A method of processing a speech frame in a radio system, comprising:

channel-decoding a speech frame having propagated over a radio path;

determining whether the speech frame is free of defects on the basis of the channel-decoding;

if the speech frame is defective on the basis of the channel-decoding, no attempt to correct the defective speech frame is made by a speech decoder;

if the speech frame is free of defects on the basis of the channel-decoding, determining only from value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes, whether the speech frame contains speech that is decodable by means of a speech decoder;

if it is determined that the speech frame does contain speech that is decodable by means of a speech decoder, the speech frame is decoded by means of a speech decoder; and

if, in determining only from value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes whether the speech frame contains speech that is decodable by means of a speech decoder, the speech frame does not contain speech that would be decodable by means of a speech decoder, the speech frame is not decoded.

7. A method according to claim 1, wherein determined that the speech frame does not contain speech that would be decodable by means of a speech decoder only from value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes is performed by utilizing probability calculation.

12. An apparatus comprising:

a channel decoder configured to channel-decode a channel-coded speech frame having propagated over a radio path;

a speech decoder configured to decode the speech frame; and

a processor configured to determine whether the speech frame is free of defects on the basis of the channel-decoding, if the speech frame is defective on the basis of the channel-decoding no attempt to correct the defective speech frame by the speech decoder is made, and if the speech frame is free of defects on the basis of the channel

decoding, determine only from the value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes whether the speech frame contains speech that is decodable by means of the speech decoder; and

wherein the speech decoder is configured to decode the speech frame if, according to determining only from value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes, whether the speech frame contains speech that is decodable by means of a speech decoder, the speech frame does contain speech that is decodable by means of the speech decoder; and

the speech decoder is arranged not to decode the speech frame if, according to determining only from value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes, whether the speech frame contains speech that is decodable by means of a speech decoder, the speech frame does not contain speech that would be decodable by means of the speech decoder.

19. A radio system according to claim 18, wherein the processor is configured to calculate the probability of the value of at least one speech parameter in determining only from the value of the at least one speech parameter in the channel-decoded speech frame and not from using channel codes.

20. A radio system according to claim 12, wherein the processor is configured to calculate the probability of change in the value of at least one speech parameter in the speech frame to be processed in determining only from the value of the at least one

speech parameter in the channel-decoded speech frame and not from using channel codes.

23. A mobile station in a radio system, comprising:

a channel decoder for channel-decoding a channel-coded speech frame having propagated over a radio path;

a speech decoder for decoding the speech frame; and

a processor configured to determine whether the speech frame is free of defects on the basis of the channel-decoding, if the speech frame is defective on the basis of the channel-decoding no attempt to correct the defective speech frame by the speech decoder is made, and if the speech frame is free of defects on the basis of the channel decoding, determine only from the value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes whether the speech frame contains speech that is decodable by means of the speech decoder; and

the speech decoder is configured to decode the speech frame if, according to determining only from value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes, whether the speech frame contains speech that is decodable by means of a speech decoder, the speech frame does contain speech that is decodable by means of the speech decoder; and

the speech decoder is arranged not to decode the speech frame if, according to determining only from value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes, whether the speech frame contains

speech that is decodable by means of a speech decoder, the speech frame does not contain speech that would be decodable by means of the speech decoder.

24. A network of a radio system, comprising:

a channel decoder for channel-decoding a channel-coded speech frame having propagated over a radio path;

a speech decoder for decoding the speech frame; and

a processor configured to determine whether the speech frame is free of defects on the basis of the channel-decoding, if the speech frame is defective on the basis of the channel-decoding no attempt to correct the defective speech frame by the speech decoder is made, and if the speech frame is free of defects on the basis of the channel decoding, determine only from the value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes whether the speech frame contains speech that is decodable by means of the speech decoder; and

the speech decoder is configured to decode the speech frame if, according to determining only from value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes, whether the speech frame contains speech that is decodable by means of a speech decoder, the speech frame does contain speech that is decodable by means of the speech decoder; and

the speech decoder is arranged not to decode the speech frame if, according to determining only from value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes, whether the speech frame contains

speech that is decodable by means of a speech decoder, the speech frame does not contain speech that would be decodable by means of the speech decoder.

Allowable Subject Matter

2. Claims 1-29 are allowed over prior art of record. The following is an examiner's statement of reasons for allowance: Wigren et al. (US 5572622) disclose a method of processing a speech frame in a radio system, a radio system, a mobile station in a radio system, and a network of radio system, comprising: channel-decoding a speech frame having propagated over a radio path (*Channel decoder 24 in figure a*); determining whether the speech frame is free of defects on the basis of the channel-decoding (*col. 4, lines 38-47, CRC, or element 102 in figure 2*); if it is determined that the speech fame is defective, carry out error concealment and then forward the concealed speech frame to the speech decoder (*figure 2*). Wigren et al. fail to specifically disclose the steps of if the speech frame is defective on the basis of the channel-decoding, no attempt to correct the defective speech frame is made by a speech decoder; if the speech frame is free of defects on the basis of the channel-decoding, determining only from value of at least one speech parameter in the channel-decoded speech frame and not from using channel codes, whether the speech frame contains speech that is decodable by means of a speech decoder; if it is determined that the speech frame does contain speech that is decodable by means of a speech decoder, the speech frame is decoded by means of a speech decoder; and if, in determining only from value of at least one speech

parameter in the channel-decoded speech frame and not from using channel codes whether the speech frame contains speech that is decodable by means of a speech decoder, the speech frame does not contain speech that would be decodable by means of a speech decoder, the speech frame is not decoded. Furthermore, it would have not been obvious to one of ordinary skill in the art at the time of invention to modify Wigren et al. in order to obtain the claimed invention. Therefore, claims 1-29 are allowed over prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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2/4/2008